

ABSTRACT

A method of motion vector prediction for use in differential motion vector coding within a block motion-compensation-based video coder. The video coder employs a generalized multiple reference picture buffer which may contain multiple reference pictures in both the forward and backward temporal direction from the current picture. For the purpose of coding selections of reference pictures within the buffer, the pictures are organized into two, potentially overlapping, lists of reference pictures. The prediction of a motion vector that selects a reference picture using a given reference picture list is not dependent upon any motion vectors that select their reference pictures using the other reference picture list. The values of spatially neighbouring motion vectors that use the same list of reference pictures as the motion vector being predicted are used for prediction, regardless of the relative temporal direction of the current and neighbouring motion vectors.